

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions of claims in the application:

LISTING OF CLAIMS:

1. (ORIGINAL) A composite ring for coupling a disk to a spindle, comprising:
a upper layer constructed of a material having a Young's modulus greater than or equal to a primary material of the disk; and
a lower layer fixedly coupled to the upper layer and constructed of a material having similar properties to that of the disk, the properties being selected from a group consisting of a coefficient of thermal expansion, thermal conductivity and Young's modulus.
2. (ORIGINAL) A composite ring as recited in claim 1, wherein the upper layer has a Young's modulus between about 20 to about 250 GPa .
3. (ORIGINAL) A composite ring as recited in claim 1, wherein the upper layer has a Young's modulus of between about 60 to about 300 GPa.
4. (ORIGINAL) A composite ring as recited in claim 1, wherein the upper layer is constructed of a material selected from a group consisting of chrome, titanium, nickel, stainless steel and composites thereof.
5. (ORIGINAL) A composite ring as recited in claim 1, wherein the lower layer has a thermal expansion of between about 1 and 25 ($10^{-6}/C$) .

6. (ORIGINAL) A composite ring as recited in claim 1, wherein the lower layer is constructed of a material selected from a group consisting of aluminum and glass.
7. (ORIGINAL) A composite ring as recited in claim 1, further comprising a middle layer fixedly coupled between the upper and lower layers.
8. (ORIGINAL) A composite ring as recited in claim 1, wherein the layers are coupled together via mechanical bonding.
9. (ORIGINAL) A composite ring as recited in claim 1, wherein the layers are coupled together by an adhesive.
10. (ORIGINAL) A composite ring as recited in claim 1, wherein the layers are coupled together at a molecular level.
11. (ORIGINAL) A composite ring as recited in claim 1, wherein a ratio of a modulus of the upper layer to a modulus of the lower layer is between about 1 and 5.
12. (ORIGINAL) A composite ring for coupling a disk to a spindle, comprising:
a upper layer constructed of a material having a Young's modulus greater than or equal to a primary material of the disk; and
a lower layer fixedly coupled to the upper layer and constructed of a material having similar properties to that of the disk, the properties being selected from a group consisting of a coefficient of thermal expansion wherein the upper layer has a hardness of greater than about 20 kg/mm²;
wherein the upper layer has a modulus of greater than about 60 GPa.

13. (ORIGINAL) A composite ring as recited in claim 12, wherein the upper layer is constructed of a material selected from a group consisting of chrome, titanium, nickel, stainless steel and composites thereof.
14. (ORIGINAL) A composite ring as recited in claim 12, wherein the lower layer has a thermal expansion between about 1 and 25 ($10^{-6}/^{\circ}\text{C}$).
15. (ORIGINAL) A composite ring as recited in claim 12, wherein the lower layer is constructed of a material selected from a group consisting of aluminum and glass.
16. (ORIGINAL) A composite ring as recited in claim 12, further comprising a middle layer fixedly coupled between the upper and lower layers.
17. (ORIGINAL) A composite ring as recited in claim 12, wherein the layers are coupled together via mechanical bonding.
18. (ORIGINAL) A composite ring as recited in claim 12, wherein the layers are coupled together by an adhesive.
19. (ORIGINAL) A composite ring as recited in claim 12, wherein the layers are coupled together at a molecular level.
20. (ORIGINAL) A composite ring as recited in claim 12, wherein a ratio of a modulus of the upper layer to a modulus of the lower layer is between about 1 and 5.
21. (ORIGINAL) A composite ring for coupling a disk to a spindle, comprising:
a upper layer; and

a lower layer fixedly coupled to the upper layer and constructed of a material having similar properties to that of the disk, the properties being selected from a group consisting of a coefficient of thermal expansion and thermal conductivity;
wherein the upper layer has a Young's modulus greater than that of a primary material of the disk;
wherein a ratio of the modulus of the upper layer to a modulus of the lower layer is between about 1 and 5.

22. (ORIGINAL) A composite ring as recited in claim 21, wherein the lower layer has a thermal expansion between about 1 and 25 ($10^{-6}/^{\circ}\text{C}$).
23. (ORIGINAL) A composite ring as recited in claim 21, wherein the lower layer is constructed of a material selected from a group consisting of aluminum and glass.
24. (ORIGINAL) A composite ring as recited in claim 21, further comprising a middle layer fixedly coupled between the upper and lower layers.
25. (ORIGINAL) A magnetic storage system, comprising:
magnetic media coupled to a spindle using the composite ring of claim 1;
at least one head for reading from and writing to the magnetic media, each head having:
a sensor;
a write element coupled to the sensor;
a slider for supporting the head; and
a control unit coupled to the head for controlling operation of the head.